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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,440	11/13/2000	David Lipson	2	7710

7590 06/05/2002

Peter Forrest
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EXAMINER

JUNG, WILLIAM C

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No. 09/711,440		Applicant(s) LIPSON ET AL.	
Examiner William Jung		Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13th November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term *one of the group consisting of* followed by *and* (instead of *or*) is indefinite as to distinctly point out the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-10, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* (US 5,388,583) in view of *Zuckerman et al* (US 3,948,248).

Ragauskas discloses of an ultrasound device dynamically coupled to the cerebral or skull or brain. The ultrasound device is designed to investigate the blood flow activities in the intracranial blood vessels (col. 5, line 19-35).

Zuckerman discloses of an ultrasound system where the blood vessels in ocular structure is investigated to diagnose stroke (col. 2, line 30-47; col. 3, line 19-35).

The motivation of Ragauska's invention was to monitor the health status of a patient by investigating the blood flow activity and Zuckermen specifically discloses of diagnosing stroke using similar blood flow analysis through the ocular system. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas to the teachings of Zuckerman to achieve the claimed inventions.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 2 above, and further in view of Gronningsaeter et al (US 6,019,724).

Gronningsaeter discloses of an ultrasound guidance procedure combined with other imaging modalities such as MR and CT (col. 7, line 56 – col. 8, line 8). The motivation of Gronningsaeter was to use ultrasound system to treat and guide therapy operation of a brain with other imaging modalities as preoperational guidance. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Gronningsaeter to achieve the claimed inventions.

6. Claims 11 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 4 above, and further in view of *Gilbert* (US 5,690,117).

Gilbert discloses of an ultrasound system where the catheter consisting of ultrasound transducer is inserted in the brain and through a drilled hole (col. 3, line 63 - col. 4, line 8; col. 4, line 15-21). The imaging method includes identifying vessels with partial blockage of blood flow (col. 7, line 53-59).

The motivation of Gilbert was to use ultrasound system to detect partial blockage of blood flow where the catheter is placed in the brain via skull. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Gilbert to achieve the claimed inventions.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 1 above, and further in view of Silverstein et al (US 5,247,938).

Silverstein discloses of an ultrasound system with the ultrasonic transducer in a catheter is inserted in a patient. The catheter also includes vacuum or suction to attach itself to a vessel or a tissue in the area of interest (col. 4, line 36-46; in reference to figures 2-4). The goal of Silverstein's invention was to combine tissue removal/biopsy with diagnostic ultrasound system such as Ragauskas and Zuckerman. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Silverstein to achieve the claimed inventions.

8. Claims 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 1 above, and further in view of *Shturman* (US 6,027,460).

Shturman discloses of an ultrasound catheter where the catheter may be inserted in the patient via nose, ear and throat (col. 1, line 9-17). It is anticipated that the probe may be placed through any openings to the brain, which includes ocular opening. The goal of Shturman's

invention was to insert the catheter to the patient at a point of interest such as nose, ear, and ocular opening. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Shturman to achieve the claimed invention.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

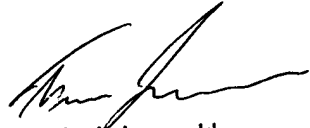
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-305-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

William Jung
Examiner
Art Unit 3737

wcj
May 22, 2002


Francis J. Jaworski
Primary Examiner